

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (Previously Presented) An apparatus comprising:
a vehicle seat having a seat part and a lower wherein the vehicle seat may have a desired comfort range of travel and two out-of-comfort ranges of travel, wherein a border is defined at the point of transition between the comfort range and each out of comfort range, where the borders between said comfort range of travel and out-of-comfort ranges each define a run in/run out position,
at least one air spring arranged for the height adjustment of the seat part and a control device for controlling the supply of at least one additional air volume to or from the air spring,

wherein an additional air volume is supplied to the air spring when the vehicle seat is in the comfort range of travel, and at a selectable run in/run out position of the air spring, the additional air volume is switched off when the vehicle seat goes from the comfort range of travel to the out-of-comfort range of travel, under control of the control device, such that the volume in which the air to be compressed is less in the out-of-comfort range than in the comfort range of travel and the inclines in the profile of a force-path air spring characteristic of the air spring in a first and in at least one further range are different from one another.
2. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 1,
characterized in that
in the range (3, 4) of the force-path air spring characteristic (1₁-1a, 1b, 1c) the additional air volume that can be supplied or discharged is greater or smaller than in the first range (2) or is completely switched off.

3. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 1, characterized in that the additional air volume in the further range (3, 4) can be supplied to or discharged from the air spring in each case in a number of stages, preferably in three stages.
4. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 1, characterized by at least one pneumatic directional control valve for supplying/discharging the additional air volume(s).
5. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 1, further comprising the automatic height adjustment of the seat part at the start of a use operation by a user having a predefined weight wherein air is supplied to or discharged from the air spring under control of the control device such that the air spring adjusts to a central position (7) in the first range (2) of the force-path air spring characteristic (1; 1a, 1b, 1e).
6. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 5, further comprising a regulator switch that is arranged in the region of an armrest of the vehicle seat.
7. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 1, characterized in that the first range (2) within the force-path air spring characteristic (1; 1a, 1b, 1e) can be displaced by an operating device operable by the user to operate the control device such that the seat part is adjusted to the desired height.

8. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 1, further comprising
a recognition device for recognizing a user using the vehicle seat by his weight.
9. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 1,
c h a r a c t e r i z e d i n t h a t
the additional air volume that can be supplied and discharged is greater than 0.1 liter in
the first range (2) of the force-path air spring characteristic (1; 1a, 1b, 1c) and is either 0.0
liter or greater than 0.0 liter in the further range.
10. (Currently Amended) ~~Spring device~~ The apparatus according to Claim 1,
c h a r a c t e r i z e d b y
recognition and switching devices (8a, 9a) for recognizing the selectable run in and run
out positions (8, 9) of the air spring and for switching the spring device to supply and
discharge the changeable additional air volume by means of the control device.
11. (Currently Amended) Method of springing a vehicle seat, having at least one air spring
arranged between a seat part and a lower part for the height adjustment (5) of the seat
part, wherein the vehicle seat may have a desired comfort range of travel and two out-of-
comfort ranges of travel, wherein a border is defined at the point of transition between the
comfort range and each out of comfort range, where the borders between said comfort
range of travel and out-of-comfort ranges each define a run in/run out position,
comprising the steps of automatically controlling the supply and discharge of at least one
additional air volume to or from the air spring,

supplying an additional air volume to the air spring when the vehicle seat is in the
comfort range of travel, and, at a selectable run in/run out position (8, 9) of the air spring,
switching off the additional air volume when the vehicle seat goes from the comfort range
of travel to the out-of-comfort range of travel,

such that the volume in which the air to be compressed is less in the out-of-comfort range than in the comfort range of travel and the inclines in the profile of a force-path air spring characteristic of the air spring in a first and in at least one further range are different from one another.

12. (Currently Amended) Method according to Claim 11, further comprising the step of recognizing the exceeding of the predefined run in and run out position (8,9) of the air spring.
13. (Previously Presented) Method according to Claim 12, wherein the changeable additional air volume is supplied to the air spring only when there is vibration, regularly and at a high frequency by the air spring moving in and out.
14. (Cancelled).
15. (Previously Presented) Method according to Claim 11, wherein in the event of insufficient vibration damping in the end of travel regions of the air spring with respect to a residual travel path, the changeable additional air volume is reduced towards one end of travel until a sufficient damping of the air spring is achieved without touching of the end of travel by an air spring lifting cylinder.